

# Highway Construction Contracts: Annual Update

## FY2005 Awarded Contracts: Award Amount to Engineer's Estimate

WSDOT awarded 141 highway construction contracts from July 1, 2004 through June 30, 2005. For every contract awarded, WSDOT tracks the cost difference between the award amount – the lowest responsive bid submitted at the bid opening – and the engineer's estimate. The total amount of all contracts awarded during the 12-month period was \$500,099,488, which was 2.2% below the total engineer's estimate of \$511,364,300.

Seventy-seven of the 141 contracts (55%) were awarded below the engineer's estimate, and 64 (45%) were over the estimate.

The award amount on larger dollar value projects tended to be less than the engineer's estimates, leading to the total award amount being below the engineer's estimate by 2.0%. The average award amount of the individual contracts was 1.3% above the engineer's estimate.

When all bids received are more than 10 percent over the engineer's estimate, WSDOT either justifies the award or rejects all bids. (All bids on 10 proposals were rejected in 2005). WSDOT awarded the three contracts circled in the graph on the right. In these cases, re-advertisement would not have led to a reduction of the bids.

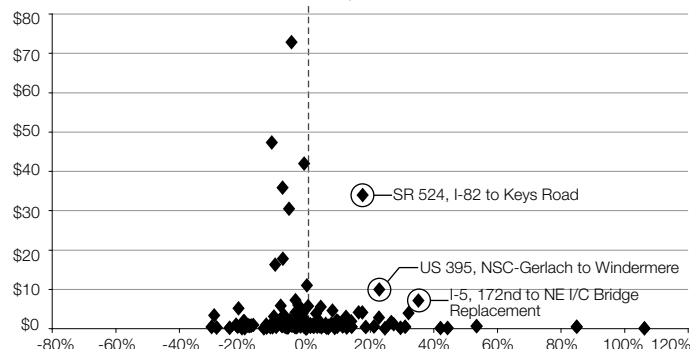
SR 24, I-82 to Keys Road increases the number of through lanes and includes new structures over I-82 and the Yakima River; awarded for \$33.9 million, 13.7% over the engineers estimate due to oil, steel and concrete price escalation between the time of engineer's estimate and contract advertisement.

U.S. 395, NSC - Gerlach to Wandermere, major grading was awarded for \$9.9 Million, 22.8% over the engineer's estimate, due to additional cost for fuel. The estimate did include inflation rates for fuel but was not adequate to cover the actual cost.

I-5, 172nd Street NE Interchange Bridge Replacement improves I-5 by replacing an existing bridge; awarded for \$7.1 million, 35.2 % over the engineer's estimate due to the contractor's use of larger equipment, a more aggressive construction schedule and steel cost escalation.

### Individual Contracts: Award to Engineer's Estimate

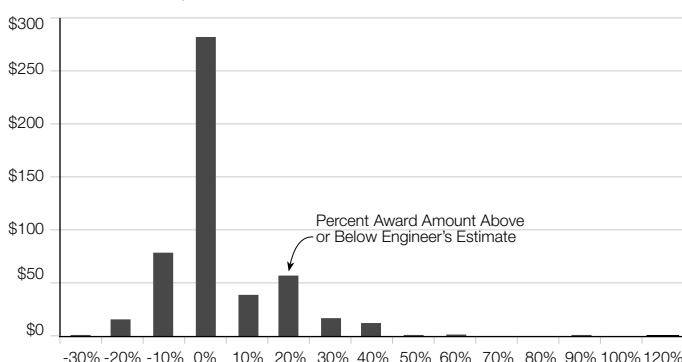
Percent Final Cost Above or Below Award, Dollars in Millions



Source: WSDOT Construction Office

### Distribution of Award Value Over/Under Engineer's Estimate

Total Value Final Cost, Dollars in Millions



Source: WSDOT Construction Office

### Awarded Contracts: Year-to-Year Comparison\*

	FY2002	FY2003	FY2004	FY2005
Number of construction contracts awarded during the fiscal year	177	176	129	141
Total award amount for highway construction contracts during the fiscal year	\$250,561,516	\$314,534,831	\$389,592,349	\$500,099,488
Total engineer's estimate for highway construction contracts during the fiscal year	\$277,091,361	\$355,420,644	\$398,923,582	\$511,364,300
Average percent that individual awards were below the engineer's estimate. Negative indicates % above the estimate.	7.5%	6.5%	1.4%	-1.3%(above)
Percent that the total award amount fell below the engineer's estimate	9.5%	11.5%	2.3%	2.2%
Percent of combined contract value awarded below the engineer's estimate	71.7%	84.0%	53.3%	74.4%
Number of contracts awarded below the engineer's estimate	129	123	85	77
Percent of contracts awarded below the engineer's estimate	72.9%	69.9%	65.9%	54.6%

\* Does not include Tacoma Narrows Bridge, the Hood Canal Bridge Contract, and Everett HOV Design Build

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## FY 2005 Completed Contracts: Final Costs to Award Amounts

WSDOT completed 155 highway construction contracts between July 1, 2004 and June 30, 2005. WSDOT tracks the final cost of each completed contract – the total amount paid to the contractor – compared to the engineer's estimate and the award amount. WSDOT generally expects the final cost to be no more than 10% above the award amount.

The combined final cost (excluding sales tax and construction engineering) of the contracts completed during fiscal year 2005 was \$294,988,223.26, exceeding the total award amount of \$280,396,785.30 by 5.2%.

The top chart shows the final cost of each contract and its percent above or below the award amount. The final costs of 121 contracts (78%) were less than 10% above the award amount as indicated by the dotted line, and 34 of the 155 contracts were above 10%. On average, the final cost of contracts was 3.9% above the award amount.

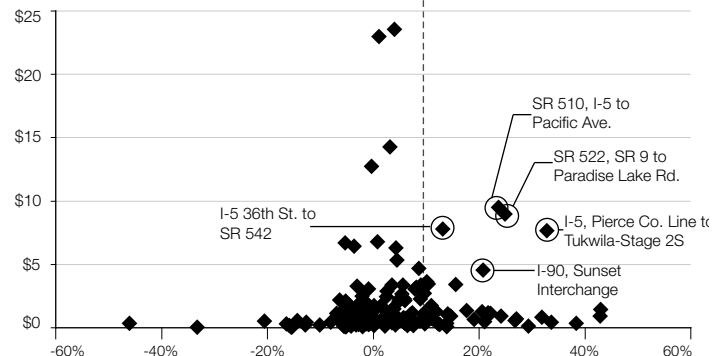
### Selected projects, circled in top right chart, that exceeded the 10% threshold:

SR 510, I-5 to Pacific Ave: \$1.82M (24%) cost over run for utility relocation.  
 SR 522, SR 9 to Paradise Lake Rd: \$1.79M (25%) extra earthwork due to weather delay and redesign for roadway safety.  
 I-5, Pierce County Line to Tukwila: \$1.89M (33%) due to structural redesign and minimizing roadway closures.  
 I-90, Sunset Interchange - Stage 1 - Front St.: \$0.78M (21%) due to design changes, and compensation to the contractor for construction delay.  
 I-5, 36th to SR 542: \$0.9M (13%) due to additional construction safety strategies.

The chart at right shows final costs in percentage ranges above or below award. About \$140 million in contracts had a final cost between 0% and 10% above the award. Of the total contract final cost, 76% was within the award-plus-10% range.

### Individual Contracts: Final Cost to Award Amount

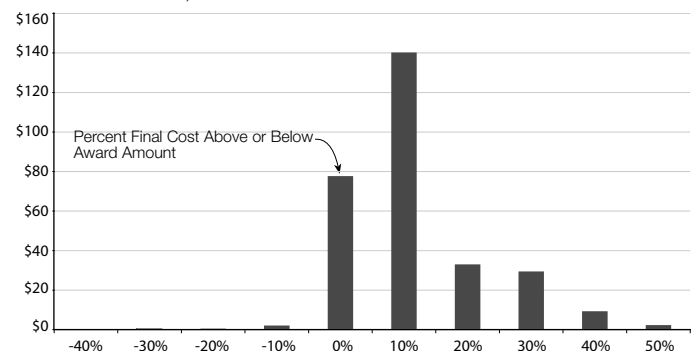
Percent Final Cost Above or Below Award, Dollars in Millions



Source: WSDOT Construction Office

### Distribution of Final Cost Value Over/Under Award Amount

Total Value Final Cost, Dollars in Millions



Source: WSDOT Construction Office

### Completed Contracts: Final Cost to Award Amount

	FY2002	FY2003	FY2004	FY2005
Number of highway contracts completed during the fiscal year	122	175	147	155
Total final cost for highway construction contracts completed during the fiscal year (excluding sales tax)	\$213,953,965	\$375,244,919	\$294,482,387	\$294,988,223
Total award amount for highway construction contracts completed during the fiscal year	\$196,000,000	\$351,525,709	\$274,495,656	\$280,396,785
Average percent that the final cost of contracts exceeded the award amount	1.8%	3.8%	2.9%	3.9%
Percent that the total final cost exceeded the total award amount	9.2%	6.7%	7.3%	5.2%
Percent of combined contract value with final cost less than 10% above the award amount	66.0%	65.3%	45.1%	76.3%
Number of contracts with final cost less than 10% above the award amount	98	137	115	121
Percent of contracts with final cost less than 10% above the award amount	80.3%	78.3%	78.2%	78.1%

# Highway Construction Contracts: Annual Update

## FY 2005 Completed Contracts: Final Cost to Engineer's Estimate

The combined final cost (excluding sales tax and construction engineering) of the contracts completed during the 12-month period was \$294,988,223, exceeding the total engineer's estimate of \$294,440,780 by 0.2%.

The top chart shows the final cost of each contract and the percent it fell above or below the engineer's estimate. The final costs of 118 contracts (76%) was less than 10% above the engineer's estimate, as indicated by dotted line. Thirty-seven of the 155 contracts were over 10%. On average, the final cost of contracts was 0.7% above the engineer's estimate.

### Selected projects, circled at right, that exceeded the 10% threshold:

SR 500, Thurston Way Interchange: Grade separation project with on/off ramps to eliminate the at-grade intersection; \$5.0M (28%) over estimate.

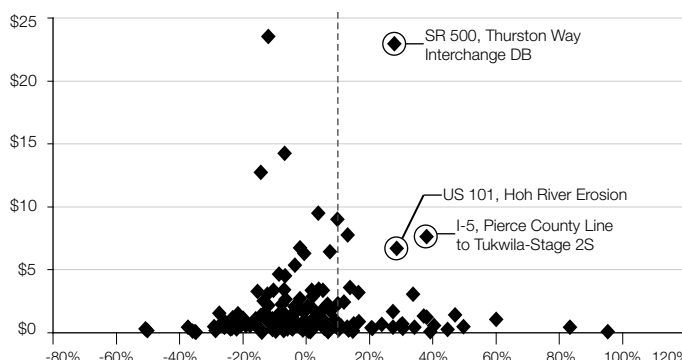
U.S. 101, Hoh River Erosion: This project is to stabilize the side slope problem to reduce the risk of roadway closures; \$1.49M (28%) over estimate.

I-5, Pierce County Line to Tukwila: Part of a comprehensive HOV system for the Puget Sound Region; \$2.11M (38%) over estimate.

The chart at right shows the distribution of final costs in percentage ranges above or below the estimate. For example, about \$49 million worth of contracts had a final cost between 0 and 10% above the estimate. Just under three-quarters (74%) of the total contract final cost fell below the estimate-plus-10% mark.

### Individual Contracts: Final to Engineer's Estimate

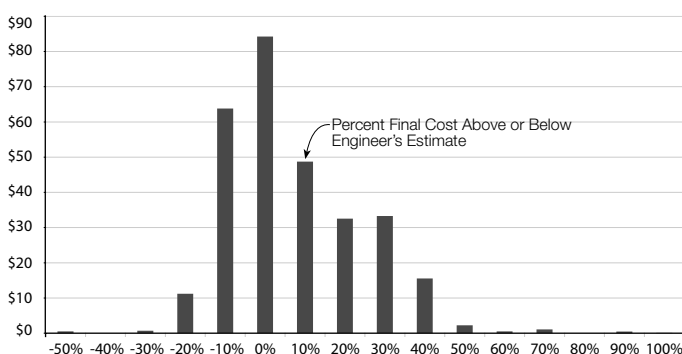
Percent Final Cost Above or Below Award, Dollars in Millions



Source: WSDOT Construction Office

### Distribution of Final Contract Value Over/Under Engineer's Estimate

Total Value Final Cost, Dollars in Millions



Source: WSDOT Construction Office

### Completed Contracts: Final Costs to Engineer's Estimate - Year to Year Comparison

	FY2002	FY2003	FY2004	FY2005
Total engineer's estimates for highway construction contracts completed during the fiscal year	\$215,000,000	\$393,078,777	\$277,017,902	\$294,440,780
Total final cost for highway construction contracts completed during the fiscal year (excluding sales tax)	\$213,953,975	\$375,244,919	\$294,482,387	\$294,988,233
Average percent that the final cost of contracts exceeded the engineer's estimate	-4.7%	-5.6%	-2.6%	0.7%
Percent that the total final cost exceeded the engineer's estimate	-0.5%	-4.5%	6.3%	0.2%
Percent of combined contract value with final cost less than 10% above the engineer's estimates	75.7%	87.1%	42.8%	74%
Number of contracts with final cost less than 10% above engineer's estimates	99	151	111	118